Yuk L Yung

List of Publications by Year
in descending order

125 papers	8,024 citations	76326 40 h-index	54911 84 g-index
135 all docs	135 docs citations	135 times ranked	6942 citing authors

#	Article	IF	Citations
1	Seasonal Variations of Solarâ€Induced Fluorescence, Precipitation, and Carbon Dioxide Over the Amazon. Earth and Space Science, 2022, 9, .	2.6	8
2	Reaction of methane and UV-activated perchlorate: Relevance to heterogeneous loss of methane in the atmosphere of Mars. Icarus, 2022, 376, 114832.	2.5	2
3	Assessing planetary complexity and potential agnostic biosignatures using epsilon machines. Nature Astronomy, 2022, 6, 387-392.	10.1	11
4	Rotation Period Detection for Earth-like Exoplanets. Astronomical Journal, 2022, 163, 27.	4.7	3
5	Seasonality in Mars atmospheric methane driven by microseepage, barometric pumping, and adsorption. Icarus, 2022, 383, 115079.	2.5	2
6	Remote sensing of atmospheric HDO/H2O in southern California from CLARS-FTS. Journal of Quantitative Spectroscopy and Radiative Transfer, 2022, , 108254.	2.3	1
7	Scattering and absorbing aerosols in the climate system. Nature Reviews Earth & Environment, 2022, 3, 363-379.	29.7	93
8	Earth as a Proxy Exoplanet: Simulating DSCOVR/EPIC Observations Using the Earth Spectrum Simulator. Astronomical Journal, 2022, 163, 285.	4.7	1
9	Seasonal Variations of Chemical Species and Haze in Titan's Upper Atmosphere. Planetary Science Journal, 2022, 3, 130.	3.6	0
10	Vertical Distribution of Cyclopropenylidene and Propadiene in the Atmosphere of Titan. Astrophysical Journal, 2022, 933, 230.	4.5	3
11	Evaluation of Modeled Hyperspectral Infrared Spectra Against Allâ€Sky AIRS Observations Using Different Cloud Overlap Schemes. Earth and Space Science, 2022, 9, .	2.6	2
12	Impact of Amazonian Fires on Atmospheric CO₂. Geophysical Research Letters, 2021, 48, e2020GL091875.	4.0	11
13	Earth as a Proxy Exoplanet: Deconstructing and Reconstructing Spectrophotometric Light Curves. Astronomical Journal, 2021, 161, 122.	4.7	9
14	Long-term drying of Mars by sequestration of ocean-scale volumes of water in the crust. Science, 2021, 372, 56-62.	12.6	73
15	Estimating nitrous oxide (N2O) emissions for the Los Angeles Megacity using mountaintop remote sensing observations. Remote Sensing of Environment, 2021, 259, 112351.	11.0	6
16	From COVID-19 to future electrification: Assessing traffic impacts on air quality by a machine-learning model. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	50
17	Sulfur monoxide dimer chemistry as a possible source of polysulfur in the upper atmosphere of Venus. Nature Communications, 2021, 12, 175.	12.8	11
18	GFIT3: a full physics retrieval algorithm for remote sensing of greenhouse gases in the presence of aerosols. Atmospheric Measurement Techniques, 2021, 14, 6483-6507.	3.1	5

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19	Mars Methane Sources in Northwestern Gale Crater Inferred From Back Trajectory Modeling. Earth and Space Science, 2021, 8, e2021EA001915.	2.6	8
20	Societal shifts due to COVID-19 reveal large-scale complexities and feedbacks between atmospheric chemistry and climate change. Proceedings of the National Academy of Sciences of the United States of America, 2021, 118, .	7.1	42
21	Diurnal variability of stratospheric column NO₂ measured using direct solar and lunar spectra over Table Mountain, California (34.38Â°â€‰N). Atmospheric Measurement Techniques, 2021, 14, 7495-7510.	3.1	2
22	Searching for Planets Orbiting Î± Cen A with the James Webb Space Telescope. Publications of the Astronomical Society of the Pacific, 2020, 132, 015002.	3.1	14
23	Constraining the vertical distribution of coastal dust aerosol using OCO-2 O2 A-band measurements. Remote Sensing of Environment, 2020, 236, 111494.	11.0	27
24	Retrieval of Iceâ€Overâ€Water Cloud Microphysical and Optical Properties Using Passive Radiometers. Geophysical Research Letters, 2020, 47, e2020GL088941.	4.0	12
25	Tracking the atmospheric pulse of a North American megacity from a mountaintop remote sensing observatory. Remote Sensing of Environment, 2020, 248, 112000.	11.0	13
26	Solar 11-Year Cycle Signal in Stratospheric Nitrogen Dioxideâ€”Similarities and Discrepancies Between Model and NDACC Observations. Solar Physics, 2020, 295, 1.	2.5	3
27	Unexpected air pollution with marked emission reductions during the COVID-19 outbreak in China. Science, 2020, 369, 702-706.	12.6	563
28	Observed Tightening of Tropical Ascent in Recent Decades and Linkage to Regional Precipitation Changes. Geophysical Research Letters, 2020, 47, e2019GL085809.	4.0	12
29	Remote sensing of angular scattering effect of aerosols in a North American megacity. Remote Sensing of Environment, 2020, 242, 111760.	11.0	17
30	Reduced European aerosol emissions suppress winter extremes over northern Eurasia. Nature Climate Change, 2020, 10, 225-230.	18.8	29
31	Surface Mapping of Earth-like Exoplanets using Single Point Light Curves. Journal of Visualized Experiments, 2020, , .	0.3	1
32	Quantifying the impact of aerosol scattering on the retrieval of methane from airborne remote sensing measurements. Atmospheric Measurement Techniques, 2020, 13, 6755-6769.	3.1	8
33	Atmospheric Methane Emissions Correlate With Natural Gas Consumption From Residential and Commercial Sectors in Los Angeles. Geophysical Research Letters, 2019, 46, 8563-8571.	4.0	32
34	Effect of the Quasiâ€Biennial Oscillation on Carbon Monoxide in the Stratosphere. Earth and Space Science, 2019, 6, 1273-1283.	2.6	1
35	Inducing Factors and Impacts of the October 2017 California Wildfires. Earth and Space Science, 2019, 6, 1480-1488.	2.6	10
36	Earth as an Exoplanet: A Two-dimensional Alien Map. Astrophysical Journal Letters, 2019, 882, L1.	8.3	27

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37	A dichotomy between model responses of tropical ascent and descent to surface warming. Npj Climate and Atmospheric Science, 2019, 2, .	6.8	10
38	Retrieval of Chemical Abundances in Titan's Upper Atmosphere From Cassini UVIS Observations With Pointing Motion. Earth and Space Science, 2019, 6, 1057-1066.	2.6	7
39	A multilayer cloud detection algorithm for the Suomi-NPP Visible Infrared Imager Radiometer Suite (VIIRS). Remote Sensing of Environment, 2019, 227, 1-11.	11.0	22
40	Study of Terrestrial Glints Based on DSCOVR Observations. Earth and Space Science, 2019, 6, 166-173.	2.6	8
41	A Comparative Study of Atmospheric Moisture Recycling Rate between Observations and Models. Journal of Climate, 2018, 31, 2389-2398.	3.2	6
42	Elucidating the Role of Anthropogenic Aerosols in Arctic Sea Ice Variations. Journal of Climate, 2018, 31, 99-114.	3.2	27
43	Using Deep Space Climate Observatory Measurements to Study the Earth as an Exoplanet. Astronomical Journal, 2018, 156, 26.	4.7	37
44	Methane on Mars and Habitability: Challenges and Responses. Astrobiology, 2018, 18, 1221-1242.	3.0	50
45	Constraining Aerosol Vertical Profile in the Boundary Layer Using Hyperspectral Measurements of Oxygen Absorption. Geophysical Research Letters, 2018, 45, 10,772.	4.0	20
46	Observing Oceans in Tightly Packed Planetary Systems: Perspectives from Polarization Modeling of the TRAPPIST-1 System. Astronomical Journal, 2018, 156, 143.	4.7	6
47	Evaluation of Radiative Transfer Models With Clouds. Journal of Geophysical Research D: Atmospheres, 2018, 123, 6142-6157.	3.3	28
48	PCA-based radiative transfer: Improvements to aerosol scheme, vertical layering and spectral binning. Journal of Quantitative Spectroscopy and Radiative Transfer, 2017, 198, 104-111.	2.3	12
49	Tightening of tropical ascent and high clouds key to precipitation change in a warmer climate. Nature Communications, 2017, 8, 15771.	12.8	107
50	Methane bursts as a trigger for intermittent lake-forming climates on post-Noachian Mars. Nature Geoscience, 2017, 10, 737-740.	12.9	49
51	Resolving the Modelâ€Observation Discrepancy in the Mesospheric and Stratospheric HO_x Chemistry. Earth and Space Science, 2017, 4, 607-624.	2.6	6
52	Aerosol scattering effects on water vapor retrievals over the Los Angeles Basin. Atmospheric Chemistry and Physics, 2017, 17, 2495-2508.	4.9	21
53	X_{CO2} retrieval error over deserts near critical surface albedo. Earth and Space Science, 2016, 3, 36-45.	2.6	11
54	Monthly trends of methane emissions in Los Angeles from 2011 to 2015 inferred by CLARS-FTS observations. Atmospheric Chemistry and Physics, 2016, 16, 13121-13130.	4.9	39

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55	Toward consistency between trends in bottom-up CO₂ emissions and top-down atmospheric measurements in the Los Angeles megacity. Atmospheric Chemistry and Physics, 2016, 16, 3843-3863.	4.9	72
56	Resolving a longâ€standing modelâ€observation discrepancy on ozone solar cycle response. Earth and Space Science, 2016, 3, 431-440.	2.6	5
57	Hypotheses for Near-Surface Exchange of Methane on Mars. Astrobiology, 2016, 16, 539-550.	3.0	25
58	A fast and accurate PCA based radiative transfer model: Extension to the broadband shortwave region. Journal of Quantitative Spectroscopy and Radiative Transfer, 2016, 173, 65-71.	2.3	15
59	VERTICAL DISTRIBUTION OF C ₃ -HYDROCARBONS IN THE STRATOSPHERE OF TITAN. Astrophysical Journal Letters, 2015, 803, L19.	8.3	25
60	First evidence of middle atmospheric <scp>HO₂</scp> response to 27 day solar cycles from satellite observations. Geophysical Research Letters, 2015, 42, 10,004.	4.0	13
61	Mapping CH₄ : CO₂ ratios in Los Angeles with CLARS-FTS from Mount Wilson, California. Atmospheric Chemistry and Physics, 2015, 15, 241-252.	4.9	69
62	Accounting for aerosol scattering in the CLARS retrieval of column averaged CO₂ mixing ratios. Journal of Geophysical Research D: Atmospheres, 2015, 120, 7205-7218.	3.3	13
63	Simulated retrievals for the remote sensing of CO₂, CH₄, CO, and H₂O from geostationary orbit. Atmospheric Measurement Techniques, 2015, 8, 4817-4830.	3.1	20
64	Tracing the fate of carbon and the atmospheric evolution of Mars. Nature Communications, 2015, 6, 10003.	12.8	90
65	Coordinated Hubble Space Telescope and Venus Express Observations of Venusâ€™ upper cloud deck. Icarus, 2015, 258, 309-336.	2.5	35
66	A non-monotonic eddy diffusivity profile of Titan's atmosphere revealed by Cassini observations. Planetary and Space Science, 2014, 104, 48-58.	1.7	23
67	Weakening and strengthening structures in the Hadley Circulation change under global warming and implications for cloud response and climate sensitivity. Journal of Geophysical Research D: Atmospheres, 2014, 119, 5787-5805.	3.3	104
68	A decadal microwave record of tropical air temperature from AMSU-A/aqua observations. Climate Dynamics, 2013, 41, 1385-1405.	3.8	2
69	Influence of Stratospheric Sudden Warming on AIRS Midtropospheric CO2. Journals of the Atmospheric Sciences, 2013, 70, 2566-2573.	1.7	16
70	Midlatitude atmospheric OH response to the most recent 11-y solar cycle. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 2023-2028.	7.1	17
71	The ACOS CO₂ retrieval algorithm â€“ Part II: Global X_{CO₂} data characterization. Atmospheric Measurement Techniques, 2012, 5, 687-707.	3.1	320
72	FUNDAMENTAL MODES OF ATMOSPHERIC CFC-11 FROM EMPIRICAL MODE DECOMPOSITION. Advances in Adaptive Data Analysis, 2012, 04, 1250024.	0.6	5

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73	CO 2 semiannual oscillation in the middle troposphere and at the surface. Global Biogeochemical Cycles, 2012, 26, .	4.9	21
74	Sulfur chemistry in the middle atmosphere of Venus. Icarus, 2012, 217, 714-739.	2.5	176
75	Vertical profiling of SO2 and SO above Venusâ€™ clouds by SPICAV/SOIR solar occultations. Icarus, 2012, 217, 740-751.	2.5	103
76	The influence of tropospheric biennial oscillation on mid-tropospheric CO₂. Geophysical Research Letters, 2011, 38, n/a-n/a.	4.0	15
77	On the use of principal component analysis to speed up radiative transfer calculations. Journal of Quantitative Spectroscopy and Radiative Transfer, 2010, 111, 810-816.	2.3	30
78	Photolysis of sulphuric acid as the source of sulphur oxides in the mesosphere of Venus. Nature Geoscience, 2010, 3, 834-837.	12.9	75
79	Tropical mid-tropospheric CO ₂ variability driven by the Maddenâ€“Julian oscillation. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 19171-19175.	7.1	45
80	Interannual variability of midâ€tropospheric CO₂ from Atmospheric Infrared Sounder. Geophysical Research Letters, 2010, 37, .	4.0	52
81	Evidence for carbonyl sulfide (OCS) conversion to CO in the lower atmosphere of Venus. Journal of Geophysical Research, 2009, 114, .	3.3	56
82	Simulation of upper tropospheric CO₂ from chemistry and transport models. Global Biogeochemical Cycles, 2008, 22, .	4.9	18
83	Seasonal cycle of C¹⁶O¹⁶O, C¹⁶O¹⁷O, and C¹⁶O¹⁸O in the middle atmosphere: Implications for mesospheric dynamics and biogeochemical sources and sinks of CO₂. Journal of Geophysical Research, 2008, 113, .	3.3	16
84	Satellite remote sounding of midâ€tropospheric CO₂. Geophysical Research Letters, 2008, 35, .	4.0	151
85	Photolytically Generated Aerosols in the Mesosphere and Thermosphere of Titan. Astrophysical Journal, 2007, 661, L199-L202.	4.5	106
86	Influence of Doubled CO2 on Ozone via Changes in the Breweâ€“Dobson Circulation. Journals of the Atmospheric Sciences, 2007, 64, 2751-2755.	1.7	23
87	Atmospheric composition, chemistry, and clouds. Geophysical Monograph Series, 2007, , 73-100.	0.1	50
88	Seasonal cycle of N2 O: Analysis of data. Global Biogeochemical Cycles, 2007, 21, .	4.9	47
89	Sources of the oxygen isotopic anomaly in atmospheric N₂O. Journal of Geophysical Research, 2007, 112, .	3.3	17
90	CO2in the upper troposphere: Influence of stratosphere-troposphere exchange. Geophysical Research Letters, 2006, 33, .	4.0	37

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91	Isotopic composition of stratospheric ozone. Journal of Geophysical Research, 2006, 111, .	3.3	45
92	Does the Nile reflect solar variability?. Proceedings of the International Astronomical Union, 2006, 2, 511.	0.0	0
93	Meridional Transport in the Stratosphere of Jupiter. Astrophysical Journal, 2005, 635, L177-L180.	4.5	25
94	Application of principal component analysis to high spectral resolution radiative transfer: A case study of the band. Journal of Quantitative Spectroscopy and Radiative Transfer, 2005, 95, 539-556.	2.3	55
95	Reply to comment by RÃ¶ckmann and Kaiser on â€œEvidence for O-atom exchange in the O(1D) + N2O reaction as the source of mass-independent isotopic fractionation in atmospheric N2Oâ€• Geophysical Research Letters, 2005, 32, .	4.0	2
96	Laboratory evidence for a key intermediate in the Venus atmosphere: Peroxychloroformyl radical. Proceedings of the National Academy of Sciences of the United States of America, 2004, 101, 14007-14010.	7.1	41
97	The Cassini Ultraviolet Imaging Spectrograph Investigation. Space Science Reviews, 2004, 115, 299-361.	8.1	210
98	Isotopic fractionation of nitrous oxide in the stratosphere: Comparison between model and observations. Journal of Geophysical Research, 2004, 109, n/a-n/a.	3.3	54
99	Quasi-biennial oscillation and quasi-biennial oscillationâ€“annual beat in the tropical total column ozone: A two-dimensional model simulation. Journal of Geophysical Research, 2004, 109, .	3.3	31
100	The seasonal cycle of N2O. Geophysical Research Letters, 2004, 31, n/a-n/a.	4.0	23
101	Evidence for O-atom exchange in the O(1D) + N2O reaction as the source of mass-independent isotopic fractionation in atmospheric N2O. Geophysical Research Letters, 2004, 31, .	4.0	10
102	A semianalytic model for photo-induced isotopic fractionation in simple molecules. Journal of Geophysical Research, 2004, 109, .	3.3	47
103	Analysis of Thermal Emission Spectrometer data using spectralÂEOF andÂtri-spectral methods. Icarus, 2003, 165, 301-314.	2.5	2
104	A Born-Oppenheimer photolysis model of N2O fractionation. Geophysical Research Letters, 2003, 30, .	4.0	34
105	Measured HDO/H2O ratios across the tropical tropopause. Geophysical Research Letters, 2003, 30, .	4.0	89
106	OH column abundance over Table Mountain Facility, California: Intra-annual variations and comparisons to model predictions for 1997-2001. Journal of Geophysical Research, 2003, 108, n/a-n/a.	3.3	6
107	PRODUCTION, ISOTOPICCOMPOSITION, ANDATMOSPHERICFATE OFBIOLOGICALLYPRODUCEDNITROUSOXIDE. Annual Review of Earth and Planetary Sciences, 2003, 31, 329-356.	11.0	191
108	Atmospheric Trace Molecule Spectroscopy (ATMOS) Experiment Version 3 data retrievals. Applied Optics, 2002, 41, 6968.	2.1	111

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109	Spaceborne measurements of atmospheric CO2by high-resolution NIR spectrometry of reflected sunlight: An introductory study. Geophysical Research Letters, 2002, 29, 11-1-11-4.	4.0	111
110	Photochemistry of Planetary Atmospheres. , 1999, , .		312
111	Isotopic Fractionation of Stratospheric Nitrous Oxide. Science, 1997, 278, 1778-1780.	12.6	165
112	Dust: A Diagnostic of the Hydrologic Cycle During the Last Glacial Maximum. Science, 1996, 271, 962-963.	12.6	127
113	A Photochemical Model of the Martian Atmosphere. Icarus, 1994, 111, 124-150.	2.5	330
114	Heterogeneous reactions with NaCl in the El Chichon volcanic aerosols. Geophysical Research Letters, 1991, 18, 673-676.	4.0	22
115	Twoâ€dimensional atmospheric transport and chemistry model: Numerical experiments with a new advection algorithm. Journal of Geophysical Research, 1990, 95, 7467-7483.	3.3	22
116	Sensitivity study of advection and diffusion coefficients in a twoâ€dimensional stratospheric model using excess carbon 14 data. Journal of Geophysical Research, 1989, 94, 18467-18484.	3.3	25
117	HDO in the Martian atmosphere: Implications for the abundance of crustal water. Icarus, 1988, 76, 146-159.	2.5	140
118	The vertical distribution of ozone in the mesosphere and lower thermosphere. Journal of Geophysical Research, 1984, 89, 4841-4872.	3.3	249
119	Photochemistry of the atmosphere of Titan - Comparison between model and observations. Astrophysical Journal, Supplement Series, 1984, 55, 465.	7.7	930
120	A two-stage mechanism for escape of Na and K from Io. Nature, 1983, 304, 710-712.	27.8	11
121	Photochemistry of the stratosphere of Venus: Implications for atmospheric evolution. Icarus, 1982, 51, 199-247.	2.5	274
122	Vertical transport and photochemistry in the terrestrial mesosphere and lower thermosphere (50â€“120 km). Journal of Geophysical Research, 1981, 86, 3617-3627.	3.3	262
123	Greenhouse effect due to atmospheric nitrous oxide. Geophysical Research Letters, 1976, 3, 619-621.	4.0	82
124	Greenhouse Effects due to Man-Mad Perturbations of Trace Gases. Science, 1976, 194, 685-690.	12.6	485
125	Detecting supercooled water clouds using passive radiometer measurements. Geophysical Research Letters, 0, , .	4.0	3